

### CLAIMS

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1. A forecasting tool for predicting future demand for quantifiable items in connection with a plurality of projects, the tool being instantiated on at least one computer in the form of a database having multiple tables, each table having information therein, the tables comprising:

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a project table having project information for each project, the project information including a reference to items to be employed in connection with the project;

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an item table having item information for each item referenced by the project table, the item information including a reference to an algorithm to be employed to determine a quantity of the item for a particular project; and

an algorithm table having algorithm information for each algorithm referenced by the item table.

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2. The forecasting tool of claim 1 wherein the quantifiable items are selected from a group consisting of parts, materials, equipment, labor, time, and combinations thereof.

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3. The forecasting tool of claim 1 wherein the database tables are distributed across several computers.

4. The forecasting tool of claim 3 further comprising a database server for controlling and coordinating the database.

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5. The forecasting tool of claim 1 wherein the project information further includes an identification of a project-type of the project, the tables further

comprising a project-type table having project-type information for each project-type referenced by the project table, the project-type information including each item to be employed in connection with the project-type.

5                   6.       The forecasting tool of claim 1 wherein the project information further includes at least one milestone date for the project, the tables further comprising a milestone table having milestone information for each milestone date referenced by the project table, the milestone information including at least one key project moment to which a need for an item for the project is referenced.

10                   7.       The forecasting tool of claim 6 wherein the item information further includes a reference to the milestone information in the milestone table and information on how to calculate a date when the item is required based on the milestone information.

15                   8.       The forecasting tool of claim 1 wherein the item information further includes an identification of at least one supplier, the tables further comprising a supplier table having supplier information for each supplier referenced by the item table, the supplier information including the items supplied  
20 by the supplier and information for each supplied item.

                  9.       The forecasting tool of claim 8 wherein the information for each supplied item is selected from a group consisting of item prices, lead-time necessary for supplying the item, and capacity for supplying the item.

25                   10.      The forecasting tool of claim 1 wherein the algorithm information for each algorithm is selected from a group consisting of: algorithm information that calculates a quantity of an item based on a mathematical calculation and data available from the tables of the database; algorithm  
30 information that calculates a quantity of an item based on a quantity calculated for

another item; algorithm information that refers to a look-up table; and combinations thereof.

11. The forecasting tool of claim 1 further comprising a  
5 requirements table that is populated on a dynamic basis with information obtained from the tables in response to a query for demand for items.

12. The forecasting tool of claim 11 wherein the requirements  
table is populated with information including a project, an item for the project, and  
10 an amount of the item required for the project.

13. The forecasting tool of claim 12 wherein the requirements  
table is further populated with information including the date when the item is  
needed for the project.  
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14. The forecasting tool of claim 13 wherein the requirements  
table is further populated with information including the date when the item must  
be ordered to satisfy the date when the item is needed.

15. The forecasting tool of claim 12 wherein the requirements  
table is further populated with information including a supplier the item is to be  
ordered from.  
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16. A method of employing a forecasting tool for predicting future  
25 demand for quantifiable items in connection with a plurality of projects, the tool having multiple tables, each table having information therein, the method comprising:

from a project table having project information for each  
project, the project information including a reference to items to be employed in  
30 connection with the project, determining an item needed for a project;

from an item table having item information for each item referenced by the project table, the item information including a reference to an algorithm to be employed to determine a quantity of the item for a particular project, determining an algorithm necessary to determine a quantity of the needed  
5 item; and

from an algorithm table having algorithm information for each algorithm referenced by the item table, determining specifics of the necessary algorithm;

from each table as necessary, obtaining any inputs necessary  
10 for the algorithm; and

applying the inputs to the algorithm to determine the quantity of the needed item.

17. The method of claim 16 wherein the project information  
15 further includes an identification of a project-type of the project, the tables further comprising a project-type table having project-type information for each project-type referenced by the project table, the project-type information including each item to be employed in connection with the project-type, the method comprising, from the project table, determining a project type of the project, the method further  
20 comprising, from the project type table, determining the item needed according to the project type of the project.

18. The method of claim 16 wherein the project information further includes at least one milestone date for the project, the tables further  
25 comprising a milestone table having milestone information for each milestone date referenced by the project table, the milestone information including at least one key project moment to which a need for an item for the project is referenced, and wherein the item information further includes a reference to the milestone information in the milestone table and information on how to calculate a date when  
30 the item is required based on the milestone information, the method comprising:

from the items table, determining which milestone is employed to calculate the date on which the item is required;

from the milestone table, determining the date in the project table that is the actual milestone date;

5 from the project table, obtaining such actual milestone date; and

applying the actual milestone date to calculate the date on which the item is required.

10 19. The method of claim 16 wherein the item information further includes an identification of at least one supplier, the tables further comprising a supplier table having supplier information for each supplier referenced by the item table, the supplier information including the items supplied by the supplier and information for each supplied item, the method comprising:

15 from the items table, determining a supplier of the needed item;

from the supplier table, obtaining lead-time information for supplying the item; and

20 calculating an order date based on an item requirement date and the lead-time information.